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ABSTRACT

The international trend toward the devolution of many decisions and responsibilities for managing schools to the schools themselves is a powerful influence changing the understanding of educational leadership. This trend is also apparent in Australia, where there has been substantial change in the way schools are structured, financed, and managed. In Victoria, the school reform initiative "Schools for the Future" is being replaced by an effort called "Schools of the Third Millennium." Along with decentralization has come concern about the managing of resources for education. Resource allocation has two central concerns, efficiency and equity. Both are essential when Australian schools face, as do schools of other countries, great problems in adapting to the technological changes of the future. The dominant theme for restructuring education is to make individuals, and therefore their countries, more competitive in the global economy. In both population and economic terms Australia is a small nation, not competitive in many areas. To avoid a situation in which much of the population works for Third World wages, Australia must shift from a concentration on manufacturing and selling goods to producing and disseminating knowledge. High technology is the wave of the future, and Australia, must use its educational system to prepare its citizens for increasing technological change. Promoting the Third Millennium rather than the Third World is what is needed to make Australian schools effective. (Contains 8 tables and 27 references.) (SLD)

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Third World or Third Millennium? Education and the Economy in Australia

**A paper presented at Annual Conference of
the International Congress for School Effectiveness and Improvement
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Many schools are like little islands set apart from the mainland of life by a deep moat of convention and tradition. Across the moat there is a drawbridge, which is lowered at certain periods during the day in order that the part-time inhabitants may cross over to the island in the morning and go back to the mainland at night. Why do these young people go out to the island? They go there in order to learn how to live on the mainland.

(Carr, 1942:34)

INTRODUCTION

The international trend towards devolution of many of the decisions and responsibilities for managing schools to the school itself, with the end point being self-managing, or self-governing public schools, has been perhaps the most powerful influence changing the understanding of leadership in education over the past two decades. Many reasons have been given for the emergence of this form of management, but perhaps the most comprehensive description has been provided by Brian Caldwell, a leading proponent of devolution, who argued:

Forces which have shaped current and emerging patterns of school management include a concern for efficiency in the management of public education, effects of the recession and financial crisis, complexity in the provision of education, empowerment of teachers and parents, the need for flexibility and responsiveness, the search for school effectiveness and school improvement, interest in choice and market forces in schooling, the politics of education, the establishment of new frameworks for industrial relations and the emergence of a national imperative.

Caldwell (1993: xiii)

Early instances come from Canada, where the Edmonton School District pioneered many of the features of self-managing schools seen today, the United Kingdom with Grant Maintained (GM) and Locally Managed (LM) Schools, the United States with the charter school movement and New Zealand, which adapted the Canadian model as a means for developing a national system of self-managing schools called *Schools of Tomorrow*.

In recent years there has also been substantial change in the way in which education is structured, financed and managed in Australia. The move towards more self-managing schools, complete with school councils, school charters, school global budgets, quality assurance, school reviews, and the like, are now a feature of most, if not all, Australian school systems. One only has to look at the changes occurring in Western Australia (Better Schools, 1987), New South Wales (Schools Renewal, 1989), Victoria (Schools of the Future, 1993), Tasmania (Directions for Education, 1996) and Queensland (Leading Schools, 1997) to see the breadth of these moves.

This change has been seen by some as a destabilising force within school systems, perhaps because it can be argued that some schools have struggled to come to grips with new requirements, new procedures and new accountability measures while others have flourished under self-management. School restructuring has been characterised by some as being a danger to the public school system but others have seen it as an

opportunity, particularly for their own school. Townsend (1997: 225) characterised this in the following way:

People currently involved in restructuring efforts could be considered as analogous to the surfer catching a wave breaking on the shore. They might remember the time when the sea was smooth, but now are faced with all sorts of upheavals that a breaking wave brings. Some will catch the wave and pick up speed towards the future, others will be dumped, and yet others will miss the wave altogether and be relegated to the thoughts of the past.

However, not only have countries such as Australia, England, New Zealand and the USA embarked on educational change, but Hong Kong, Thailand, Malaysia, China and Korea, among others, have moved in the same direction. Yet there are clear differences between the policies of the west and the policies of the east, with nothing being more obvious than the issue of resources. Whereas western countries have almost invariably brought in their self-management policies at a time of unprecedented budget cuts, both Thailand and Malaysia have predicted substantial budgetary increases in the short and long term and a massive commitment to education as a central component of economic development. The Minister of Education of Thailand (Rangsitpol, 1996: 3), at a recent UNESCO Conference on Re-Engineering Education, identified his government's 'policy to expand compulsory education from 6 years to 9 years and eventually 12 years.' The self-managing school concept was to be introduced not with cuts, but a 22.5% increase in the education budget from 1996 to 1997.

It is the issue of resources, or to be exact, the cutting back of them, that has created many of the arguments about the changes in education in Australia and it is to this issue that the rest of this paper is devoted.

SCHOOL EFFECTIVENESS AND THE EFFICIENT USE OF RESOURCES

It is important to identify that resource allocation has two central concerns, namely, efficiency and equity. In the first instance, it is critical that we have an efficient use of resources so that we get the best value for the money being allocated to education, particularly when there are so many others in the community demanding services that require government funding. In the second instance, it is important that the money be used in such a way as to give every student an equal chance of succeeding.

However, sometimes the notions of efficiency and equity can be in conflict with each other. Some would argue that the most efficient use of resources occurs when those most capable are allocated higher proportions of resources to ensure that they achieve their full potential. However, this would usually mean that those that are already the most advantaged in our society get additional resources to the detriment of those who have had various economic or social disadvantages to overcome. Others would argue that an equitable allocation of funds would mean that those most disadvantaged should receive higher levels of funding to try and bring them up to the levels of those with family or social advantages, but this also meets with opposition.

It could be argued that in a devolved system, such as those being developed in Australia, the education authority and the school have responsibilities for both efficiency and equity, but that these will operate differently at each level. Perhaps the major concern at the authority level is to ensure equity across the system (which may mean differential distribution of funds to schools with different circumstances) and to monitor the efficiency of the resource allocation at the school (to check that the money has been spent in accordance with the charter). On the other hand, perhaps the major

concern at the school level is to ensure efficiency of resource allocation (so that appropriate funds go to the various curriculum and administrative programs) and to monitor equity within the school (by making sure that all students experience success in these programs).

In terms of total allocation of funds to schools, perhaps the most cited school effectiveness research is that concerned with the education production function model. Although there had been universal agreement on the need for improvement in student outcomes, there was far less agreement on how these would be achieved. The production function studies attempted to derive a model for the relationship between educational inputs and outcomes. School input characteristics such as teacher salary and qualifications, facilities, teacher-pupil ratio and per pupil expenditure, and pupil characteristics such as socioeconomic status and ability were compared with outcome measures such as achievement on standardised tests, patterns of educational futures and adult employment earnings.

Perhaps the most influential studies were conducted by Eric Hanushek (1981, 1986, 1989, 1991). Some educators had argued that, to improve the outcomes of students, more money was required by the school system. Hanushek's studies led to the conclusion that there was little consistent relationship between educational expenditure and pupil achievement (Hanushek, 1986:1161). This set of studies has allowed many governments to argue the case that they could increase the quality of student outcomes and decrease the expenditure on education simultaneously.

However, a recent re-analysis of Hanushek's data (Hedges, Laine & Greenwald, 1994) has suggested that the conclusions drawn by Hanushek are not as watertight as first thought. Hedges *et al.* used more sophisticated analysis mechanisms and concluded that there was 'strong' support for at least some positive effects of resource inputs and little support for the existence of negative effects...the pattern of effects is most persuasive for global resource variables (PPE and teacher experience) the median effects are positive for most resource variables, with the clear exception of teacher education' (Hedges *et al.*, 1994: 13).

As well as these concerns with Hanushek's findings, there is evidence to suggest that the level of expenditure on education does have an effect on the numbers of students that remain in the system, how well they do, and their aspirations for the future. The report *Debunking Myths About Public Schools* (Association of Californian School Administrators, 1996) argues that there 'is a direct cause and effect relationship between student achievement and the amount of money states spend per pupil.' It argues that in lower spending states, few pupils see further education beyond school as an option, whereas higher spending states encourage more students to undertake the Scholastic Aptitude Test (SAT), which determines who will go onto college. If we combine this perspective with additional information that is emerging from the Goals 2000 research, we can start to see a pattern that suggests that the level of resourcing is not as irrelevant as some politicians might have us believe.

Tables 1 and 2 provide a comparison between the student outcomes in reading and mathematics at grade four level and the percentage of students undertaking the SAT tests for the states spending highest and lowest amounts of money per pupil. Table 1 suggests that finances are not the only factor at play when considering how well students achieve. Variations will occur because of the mix of students within the system, the priorities given to various curriculum areas by the system and the schools and other social and welfare options available to students who are not doing well. One would need to analyse the demographics of each of the states to get a better picture.

Table 1: Per pupil expenditure and student outcomes: Highest Spending US States

	Per pupil school expenditure 1994-95	% of public school grade 4 students 'proficient' or 'advanced' in reading	% of public school grade 4 students 'proficient' or 'advanced' in mathematics	% of HS seniors taking 1995 SAT tests
New Jersey	\$9889	29%	25%	47%
Connecticut	\$8604	33%	25%	81%
Rhode Island	\$7348	27%	14%	70%
Massachusetts	\$6940	31%	24%	80%
Maryland	\$6720	22%	19%	64%

Table 2: Per pupil expenditure and student outcomes: Lowest Spending US States

	Per pupil school expenditure 1994-95	% of public school grade 4 students 'proficient' or 'advanced' in reading	% of public school grade 4 students 'proficient' or 'advanced' in mathematics	% of HS seniors taking 1995 SAT tests
North Dakota	\$4636	32%	23%	9%
Alabama	\$4458	17%	10%	8%
Arkansas	\$4106	20%	10%	6%
Oklahoma	\$4323	25%	14%	9%
Mississippi	\$3697	15%	7%	4%
Utah	\$3626	25%	20%	4%

However, the tables indicate that although there is not a clear trend related to student funding and proficiency in basic skills, there does appear to be a clear trend between student funding and their expectations. Certainly substantially more students in the higher spending states see themselves as going on to tertiary education (as shown by the proportion of them sitting the SAT test). Again the issue is raised as to whether school effectiveness has a social justice component or not. If education is provided in such a way as to encourage most of the students undertaking it to aspire to higher education, then the higher spending US states would seem to be more effective.

McGaw (1994) argued that many of the recent restructuring activities accompanied by simultaneous cutbacks in education indicate a lack of faith in the impact of resources which resulted from the substantially increased dollars per student allocated to schools in the 1970s and 1980s without any systematic research to indicate the benefits of those increased resources. He suggested that the current policies of resource reduction 'are based, not on the evidence that there will be no negative effects, but on lack of evidence

to the contrary' (McGaw, 1994:10). The material contained in tables 1 and 2 suggests that the evidence that funding does make a difference is starting to emerge.

THE IMPACT OF CHANGE ON SOCIETY AND EDUCATION

If we look at human history, it will not take us long to discover at least two things have been the dominant shapers of our current society. First, human progress never seems to stop and it seems to be happening at an ever-increasing rate. Second, the emerging globalisation of the economy has changed the way in which we think about ourselves and the world. Both of these factors have impacted on our communities more in the recent past than ever before. The first can be characterised by the rapidly approaching Third Millennium, where technology will lead us to virtual schools (and perhaps everything else) and the second can be characterised as a concerted attempt by the rich and powerful to change the nature of human relations through the development of a '20:80 society, where 20 per cent of the population will suffice to keep the world economy going and the unemployed 80 per cent will be pacified by a diet of 'tittytainment' - i.e. the modern equivalent of bread and circuses but without nearly so much bread' (Martin and Schumann, 1997).

Technology and Education

It appears that technology has its own version of Zeno's Paradox (the Greek philosopher that suggested if you took half of a pile of sand, then repeatedly took half of what was left, you would never actually have no sand left). Technological change has increased rapidly, as was pointed out in 1970 by Alvin Toffler in *Future Shock*, and it continues to speed up. We think that it must slow down sometime soon, but it never does. We might be getting closer and closer to the limits of human ingenuity but we are not there yet, and possibly will never be.

An instance this is that, in the 1860s, the death of Abraham Lincoln was not reported in London until 12 days later, the speed of travelling on water, but just two generations later, radio had been invented and the disaster of the Hindenberg Airship was graphically portrayed as it happened to listeners all over America. Yet less than three generations on from the radio, the Macintosh computer that I now use uses gigabytes instead of kilobytes. I walked into a computer shop recently where they were displaying an Apple IIC, which was on the market for \$1745 just ten years ago. The same computer now is worthless and for the same amount of money today I can get a computer thousands of times more powerful. Many of the programs Victorian schools receive by satellite today are totally edited at Monash University on a Macintosh computer with more than a million times the memory of the first apple of just twenty years ago. I am now able to access instantly millions of computer sites all around the world through Internet. I cannot walk out of a computer shop with a new computer without it being obsolete by the time I get it home. It took four generations to move from the pony telegraph to radio, but the subsequent three generations have seen massive changes.

Dale Mann (1997) has argued that we 'chronically confuse the broad and multi-source event of "education" with the expensive and troubled business of "schooling"'. He argued the case for 'serious play' and suggested that if schools did not develop a partnership between the home, the entertainment industry and technology in the next few years, then the element most likely to disappear was the school.

In Victoria, with the consideration of autonomous schools (or Third Millennium Schools) already proposed at a symposium earlier in the ICSE conference, the next wave of schools is already with us less than five years after the implementation of the last one. Caldwell (1997) argued that:

there are three tracks in the re-engineering of school education:

- Track 1: Creating systems of self-managing schools in the public sector (time horizon 3 years)
- Track 2: Unrelenting focus on restructuring learning and teaching (time horizon 5 years)
- Track 3: Re-engineering school education: a *gestalt* for schooling for the knowledge society (time horizon 10 years)

It is obvious that technology will have far greater impact on education in the future than it has up until now. How we address the development of technology in the future will be one of the critical issues for everyone involved in education. The early years of the Third Millennium will probably identify the answers. Bill Gates has argued that we have seriously overestimated the extent to which technology will develop over the next five years, but have seriously underestimated its development over the next fifty. We now need to deal with the possibility that, somewhere in the not too distant future, we will have virtual classrooms, with students plugging their helmet and gloves into their computer at home to become virtually surrounded by their classmates and the teacher. Or we could have students walking out their front door onto the Steppes of Africa or the ice of Antarctica. Such a development is no more or less feasible than the Internet would have been to the scientists of the 1940s who would walk for five minutes to get from one end of their computer to the other.

Globalisation of the economy and education

At present, the dominant theme for restructuring education is to make individuals, and therefore their countries more competitive in the global economy. In both population and in economic terms Australia is a small nation and, as such, is uncompetitive in many areas. On 1996 population estimates, Australia is not in the fifty largest countries by population. It has less than one third of one percent of the world's population and, day by day, that figure gets smaller. Australia's population is only 7%, and the economy is only 5% the size of the United States.

These factors lead to Australia's inability to compete internationally, particularly in areas economic. Yet government and economists in Australia, as in other parts of the world, are arguing that we should be able to compete. Since we can no longer rely on our natural resources to maintain our living standards, there have been changes to the economy aimed at making Australia become more competitive in terms of our manufacturing base.

However, maintaining first world living standards for all is incompatible with manufacturing goods that can compete with third world salaries and prices. To accomplish this means to have a majority of the population working for something akin to third world wages, thus ensuring that a small proportion of the population can maintain their first world standards. This is a similar situation to many third world countries now. Millions of people work for pennies to keep a comparative few in luxury.

By looking at how Australia has changed since current year 12 students were starting their school career, perhaps we can make some judgements as to the impact of these economic policies on Australian citizens. As the tables below show, Australia is a very different place from the time when today's year 12 students were starting school. One of the most dramatic changes has been a shift in employment which has brought with it changes in the financial, social and welfare positions of both individual families and whole communities.

Total employment grew by around 17% between 1987 and 1996, from just over 7 million to 8.3 million people. However, a more detailed analysis shows that the growth patterns have not been uniform. Table 3 indicates that the unemployment rates in 1996 were approximately the same as those of 1984, but youth unemployment was significantly higher.

Table 3: Changes in Employment

Employment	Australia 1987	Australia 1995-6
Full-time	5,656,200	6,260,500
Part-time	1,416,900	2,029,200
Male Unemployment	8.7%	8.7%
Female Unemployment	8.3%	9.3%
15-19 Unemployment	20.6%	34.7%
20-24 Unemployment	17.7%	19.4%

However simply to report the overall growth rate disguises a rapidly changing society. These figures can be further analysed on the basis of three factors critical to our communities. The first is the difficult situation of youth unemployment, the second is the move from full-time to part-time employment, and the third is the difference between male and female employment growth. Table 3 shows that it was more difficult in 1996 for young school leavers to become employed than it was in 1987 but there is also a rapidly changing proportion of people that are employed part time rather than being fully employed. Table 4 indicates that although overall growth was 17%, the growth in full time jobs was just 11%. Most of the new jobs were part-time with a 43% growth between 1987 and 1996. Also male employment grew by just 11% (full-time 6%, part-time 65%) while female employment grew by 27% (full-time 20%, part-time 38%).

Table 4: Employment growth

Growth in Employment in Australia 1987-96	Fulltime	Part time	All employment
Male under 25	-12.5%	57.7%	-0.3%
Male 25-55	11.8%	79.4%	14.3%
Male over 55	1.9%	56.1%	8.6%
Total Male	6%	65%	11%
Female under 25	-17.8%	65.2%	6.7%
Female 25-55	38.1%	29.2%	34.3%
Female over 55	25.1%	49.5%	36.7%
Total Female	20%	38%	27%
Total Employment	11%	43%	17%

What these tables indicate is that much of the responsibility for growth in employment has been thrust upon people, particularly women, who are prepared to work part-time. There has been very little growth in employment for males and younger people, who leave school early, have very little chance of becoming employed. The most disadvantaged groups, in terms of employment are young people under 25 and older men over 55. These sectors have an impact on education too, because the shift from full-time to part-time employment has had the effect of lowering the overall income levels of families thus making it necessary for both parents to work. With both parents working, the levels of family support and guidance, particularly for those mentioned above, have diminished. The changing patterns of work (or non-work) may be the root cause of many of society's current ills.

The changing nature of work has also had an impact on the comparative wealth of families. Table 5 shows the comparative rates of pay for 1984 and 1996. It indicates that the average adult weekly pay, before overtime, has increased substantially. But if we add the information from table 4, we find that, more and more, those in full time work are becoming much better off than those in part-time work or those that are unemployed. As most of the new work is part time, these gaps are getting wider.

Table 5: Changes in Pay rates

Employment	Australia 1984	Australia 1996
Average Adult Weekly Pay	\$375	\$715

Tables 6 and 7 compares the purchasing power of the 1984 family with that of 1997. The tables indicate that, on average, families in 1997 are not as well off as those of 1984.

Table 6: Mean household weekly income

Mean Household weekly Income	Income 1984	Income 1997	% Increase
lowest 20% of Households	\$116	\$152	31%
2nd lowest 20%	\$238	\$354	49%
3rd lowest 20%	\$389	\$592	52%
4th lowest 20%	\$569	\$909	60%
top 20% of households	\$957	\$1609	68%
Average across Australia	\$454	\$723	59%

Tables 5 and 6, together, show us that whereas less than sixty per cent of families had a household income less than the average adult weekly earnings in 1984, by 1997 this had risen to approximately 70% of households. Table 6 indicates that average weekly household income has increased by 58% over the period 1984 to 1997, but the increase

of 66% in mean weekly expenditure per household detailed in table 7 more accurately reflects the impact of inflation over that time.

Table 7: Mean household weekly expenditure

Mean Household weekly Income and Expenditure	Expenditure 1984	Expenditure 1997	% Increase
lowest 20% of Households	\$164	\$303	85%
2nd lowest 20%	\$262	\$426	63%
3rd lowest 20%	\$347	\$573	65%
4th lowest 20%	\$428	\$714	67%
top 20% of households	\$607	\$994	64%
Average across Australia	\$362	\$602	66%

Tables 6 and 7 show that the increases in income and expenditure has not been uniform across the income groupings. The lowest 20% of families only increased their weekly household income by 22%, whereas the top 20% increased by 67%. Conversely, the poorest 20% of families increased their household expenditure by 159%, whereas the top 20% only increased their expenditure by 63%. The figures indicate that, on average, families in the lowest 20% of household income spend about \$150 per week more than they bring in (utilising savings, credit cards or other lending facilities) and that families in the top 20% of household income are able to save about \$600 every week.

Any reasonable reading of the figures would suggest that there has been a shift of wealth from the poorest to the richest in our communities since 1984. The poorest forty percent of households in Australia are considerably worse off in 1997 than they were in 1984, the middle income households are around the same as they were in 1984 but the richest twenty per cent is the only group that is better off, although only slightly, than it was in 1984.

The household income and expenditure figures confirm the anecdotal evidence provided by research, such as that done by the Smith Family and the Brotherhood of St Laurence (BSL, 1996), that families at the lower end of income generation are having to deal with an unacceptable proportion of the economic change that has taken place. Table 8 indicates that the proportion of families with dependent children struggling against all the economic odds is growing each year.

Table 8: Dependent children in low income homes

% of families with dependent children in the lowest 40% of income categories	Australia	Australia
	1984	1997
	7%	17%

A recent report by Monash researcher Bob Birrell, reported in *the Age* (Milburn, 1997: 1), suggests that up to one in three adults and 41% of children rely on government

welfare payments to survive. In real terms the number of children in chronically poor homes (1995 incomes less than \$24,000) has risen from 93,000 in 1987 to 688,000 in 1995. It could be argued that this information suggests that the Australian community is rapidly heading towards the characteristics of a third world nation, with few people improving their standards of living at the expense of the majority of the population. Martin and Schumann (1997), in their book *The Global Trap*, suggest that this movement is worldwide and is controlled by multinational companies making decisions for their own, rather than the community's, benefit.

Anil Bordia (1996), at a recent UNESCO Conference, argued 'The world has enough resources for human need, but not enough for human greed'. Galbraith (1992) argues we have lost the commitment to the common good. We no longer see beyond our own needs to the necessity of providing a basic standard of living for everyone. Evidence of this movement away from 'community service' can be found by the introduction of 'user pay' schemes, not only in business, but increasingly in health, in social services and now in education. But it seems that, in many cases, the people who most need the service can't afford to pay and those that can afford to pay don't need the service. The user pays mentality exacerbates this problem because it not only causes problems for individuals but actually leads to the demise of services. If the only people who require a service are those that cannot afford to use them, then the service itself becomes unviable and is likely to attract even less government funding on the basis that no-one uses the service. Many of the recent decisions related to the privatisation of education, which have moved this community service into the realm of 'user-pays', have already led to the demise of many Victorian government schools, and various programs within schools, with the possible endpoint being the demise of the government school system altogether.

Hughes (1996: 1) argued 'We may be tempted to ask why we should use a business concept in the reform of education. Business has not been uniformly successful, even in surviving. Of the top 100 firms on the business magazine Fortune list of 1970, one third had gone out of business by 1990.' Are we to accept the possibility that one third of our schools will not be in existence in twenty years time? What are the implications of this for communities and individual students? One difference between business and education is that if one car company goes out of business, there is another model that we can buy. We might have to go a little further to get it, but we only have to go once. But what happens if a school goes out of business? Either it will be replaced by a school of another type (privatisation) or we will have to send our children to another school further away, not just once, but twice a day for the rest of the child's schooling. Both alternatives will be more costly for families.

THE THIRD MILLENNIUM CHOICE

The Third Millennium choice tries to overcome the need to take services away by trying to develop the economy at the top end rather than the bottom, not by manufacturing and selling goods, but by producing and disseminating knowledge. If we focus on the future and move towards what will be economically productive in that future, a small country, such as Australia, can offer high quality services in the knowledge area to all other parts of the world. Ireland has already demonstrated how well this can be done. High technology is the way of the future and the Internet is the new world market. If education can produce something that is best in the world and is something the world needs, then the opportunities are enormous.

Minzey and Townsend argued that there was a need for schools to change to what they called a 'core-plus' education, where the core activity was to 'encourage and support those activities which enhance community life' and the plus part of the plan would be program based and 'consist of all the formal classes, courses and offerings

for all the members of the community' (Minzey and Townsend, 1983: 12-13).
However:

The most important aspect of core-plus education, however, is its change in the perception of what public schooling should be. It starts with the premise that schools must change because society has changed, and it suggests the development of an educational system to replace the school system. Paramount to this thought is the idea that schooling is but a part of education and that only an educational system which deals with life education for all members of its society can provide for the educational needs of its people and its community in the years ahead. It accepts the fact that there is no terminal date or final degree for an educated person.

(Minzey and Townsend, 1983: 19)

It could also be argued that if education follows other forms of human development, what has happened up until now is just the tip of the iceberg. Let us take an educational example of the Third Millennium view of development. If a teacher has developed what might be considered to be world's best practice in terms of teaching mathematics, or music or science, a method that is both student-proof and teacher-proof, to the extent that it could guarantee success for either children or adults, or both, why could it not be packaged and made available to others worldwide? The literacy work of Robert Slavin with 'Success for All' and Marie Clay with 'Reading Recovery' are early instances of what might be done.

In such instances, the school (as publisher) and the individual teacher (as author) would benefit, in terms of money and reputation. If a school was known to have the best maths teaching in the world, it could market this to students internationally, either in person or through flexible delivery. Should we not encourage our students to be entrepreneurial in this way? What do we need to teach them for this to happen? Could not this skill base be equally marketable? Schools would no longer have to compete with each other. Clusters of schools, each with their own particular strengths, could be serving their local community directly, utilising the best practice we can find from all around the world, and serving the international community as well.

However, we might also want to go one step further, by producing an educational system that promotes these types of skills; vision, entrepreneurship, high level development capabilities, teamwork, not in just a few of our students, but in all of them. We would not only be able to sell specific products, but the educational system that developed the people who made them. An alternative view to the Third World solution to current economic problems is possible, but only if we accept that all people in the future must be capable, skilled and self-motivating.

TOWARDS THE THIRD MILLENNIUM SCHOOL

Brian Staples (1989) once called schools 20/20 institutions, that served 20% of the people for 20% of the time. We might make the comparison with hospitals, that other major user of state finances that are (theoretically at least) open all of the time and serve the whole community. If we do not move schools rapidly towards what Staples called 100/100 organisations, the chances of schools, teachers and parents becoming increasingly marginalised as they first, become a smaller proportion of the community and second, be seen as not offering services as important to the rapidly ageing group of 'baby-boomers' as do health or welfare, increases day by day.

The Australian Council for Educational Administration, in the middle of 1997, held its first Virtual Conference. A group of people provided a range of papers, which were all placed on the Internet. Participants in the conference were given access to the

site, were able to download the papers and comment on those that they wanted to through email. This conference, and the formal one that preceded it, provided a range of opinions about what the future held for schools, ranging from '...the formal education system could be said to be in its last throes' (Spender: 1997:1) to '... the most probable state of schools in 2007 is that they will be much the same as they are now' (White, 1997:1).

During the ACEA Virtual conference, Beare (1997: 1) posed a question of a similar kind.

If, as an educational planner, you were presented with a greenfields site on which a new town or suburb was to be built to accommodate dwellings for approximately 22,000 people, what schools or educational buildings would you offer the developer?

He argues that there are some things that you would not have, including:

- the egg-crate classrooms and long corridors;
- the notion of set class groups based on age-grade structures;
- The division of the school day into standard slabs of time;
- The linear curriculum parceled into step-by-step gradations;
- The parcelling of human knowledge into pre-determined boxes called 'subjects';
- The division of staff by subject specialisation;
- The allocation of most school tasks to the person called 'teacher';
- The assumption that learning takes place in a place called 'school';
- The artificial walls that barricade school from home and community;
- The notion of a stand-alone school isolated from other schools;
- The notion of a school system bounded by a locality such as a state or even country;
- The limitation of 'formal schooling' to twelve years and between the ages of five and eighteen.

(adapted from Beare, 1997: 2-4)

If we accept these arguments about what schools in the future should not be, we have some indication of the task facing school communities, teachers and parents on the one hand, and governments and educational policy makers, on the other. Schools and teachers can no longer rely upon children as their only, or perhaps even their major clients. It is obvious that governments are no longer as dedicated to education for all as they were in previous times and that this lack of dedication is a result of a declining proportion of the community that have an active interest in education and an increasing marginalisation of the families that do. If schools, in any form, are to survive in the longer term, rather than being replaced by a combination of computer assisted learning, organised recreation and a widening of the provision made available for various members of the community, based upon their ability to pay, then they must immediately undertake a review of their whole reason for existing.

The evidence suggests that technology will continue to change, that government funding will continue to be a problem, that the social and employment needs of students will continue to change. We may need to consider different ways of staffing the school, with low teacher-pupil ratios for some grades to ensure all students have adequate skills to promote self-learning, and perhaps larger groups for computer based learning, supplemented by small group discussions and social interactions. However, if the reform must continue at the speed that is currently indicated, perhaps we should be reviewing not just schools, but the underlying purpose of schools as well. Let us start

with what we might consider to be the underlying goals of education. I would argue that all of the separate objectives we might have for an education system can be consolidated into two all-encompassing goals:

- To pass on the traditions, knowledge and attitudes held by the society from one generation to the next.
- To help the individual develop the skills, attitudes and knowledge necessary for him or her to survive within that society over the course of one's lifetime.

The past and, generally speaking, present education system, namely primary and junior secondary schools for all, senior secondary schools for some and university for a few served society well in the industrial age. If the world of the factory and other unskilled jobs required people who undertook rote, repetitive tasks and were required to be punctual and submissive, the school years from 5 to 16 provided this. Those who were to be middle level professionals completed school and perhaps went on to practical and theoretical training for specific tasks (teachers, nurses). The movers and shakers of society went on to university.

However, this societal structure can only exist in the future if we move to a third world economy. If we are to be competitive internationally and have first world living standards for all of our communities, this past education structure is no longer viable. We might argue, as Minzey (1981) has, that in the past educational change has been similar to rearranging the toys in the toy box, when what we really needed was a whole new box. If so what might that box look like? Having identified what the purpose of the education system of the future might be we can then ask ourselves two complementary questions:

- What does the society of the future need for its population?
- What skills does the individual need in the future?

Given the changes that have been mentioned in other parts of this paper, I would suggest that, for the first time in history, the needs of society and the needs of the individual might be identical. The following list is a start, rather than being definitive:

- a strong skill capability in literacy, numeracy and computer technology;
- cultural, artistic and human sensitivities;
- the ability to change work as work changes;
- the ability to learn and relearn;
- the ability to make decisions, individually and in groups;
- the ability to use leisure time profitably;
- the ability to make maximum use of diminishing resources;
- a commitment to work with others to improve the community;
- the ability to use technology as a means to an end.

Many of the items listed promote community living as well as individual development because local communities might become the centre-point of democracy within the foreseeable future. As governments decrease the commitment to many of the services previously seen as their responsibility, local communities will have to generate ways in which they do it themselves. It will also change the way in which we view school effectiveness. If schools must go beyond the simple delivery of a set of academic skills to be considered effective, then new mechanisms for judging effectiveness will have to be developed.

One of the difficulties that, despite Beare's 'greenfields' option, we have is that we are not establishing a system from scratch. We already have schools and they have been in existence for a century and a quarter. But perhaps what we need to do is to turn the clock back a little, to wonder what we might do if schools did not now currently exist. Using the responses to the questions about what both society and the individual might require in the future as a basis, we might now ask ourselves how the education system of the future might be different to schools as they are now. If we look at these two lists, we can establish where the gaps in the current system are that need to be addressed in order to move to the new system. How do we make the new system one that responds to what I have called the Third Millennium, rather than the Third World response to the current economic situation? The following table provides some attempt to provide such a comparison.

Characteristics of Schools Now	Characteristics of Education in the Year 2010
Everyone must attend formal education programs for a certain minimum amount of time.	People have access to learning 24 hours a day 365 days a year.
Everyone must learn a common 'core' of content knowledge.	Everyone must understand the learning process and have strong learning skills.
The information to be learned must be graded in a specific way and must be learned in that order.	Information is accessed according to the learner's capability.
What is to be taught, when it should be taught and how it should be taught should all be determined by a professional person.	What is to be taught, when it should be taught and how it should be taught will all be determined by the learner.
When a person leaves formal education they are fully prepared for society and life.	A person does not have to be in formal education to interact with learning networks.
Important learning can only occur in formal learning facilities.	Important learning is that determined by the learner and can be learned anywhere.
The terms 'education' and 'school' mean almost the same thing.	The term 'school' has disappeared.
The more formal education you have the more successful you will be.	The more learning you have the more successful you will be.
Once you leave school, you enter the 'real world'.	'School' is only one gateway to the 'real world'.

Some other changes that might be predicted, particularly if we see a future where schools are something like they are now, include extending the range of the school's activities. This might include extending the school hours from the current less than 15% of the year to something over 50%, extending the school clientele from the current 20% of the population to the whole population, or both. It does not seem cost effective to have a publicly owned building, with a range of facilities that might be used by all members of the community, shut for the majority of each day and on more than a third of the days in a year.

Promoting a range of inexpensive, relevant programs to community members outside of school hours seems one way in which the school might increase its base of community support, provide a much more cost-effective use of public plant and funding and perhaps raise some additional funds that might extend the range of school programs. If society is going to continue to change, even at its current rate, the need for re-training, and for local support services (health, welfare, safety) will continue to escalate. Rather than having these services spread all over town, schools could be redesigned to incorporate them so they would be readily available to all families. The critical thing is for school administrators to convince their school communities that this is the way to go.

Stoll (1997: 5) argued that there is little independent research evidence that showed that externally mandated changes, such as 'league tables of external test and examination results or inspections where 'failing' schools are publicly labelled...engender commitment on the part of those who have to implement the change'. Her focus brought together the disciplines of school effectiveness and school improvement as a means of establishing how schools might improve. She called on her previous work with Dean Fink (Stoll and Fink, 1996: 43) to define school improvement as:

a series of concurrent and recurring processes in which a school:

- enhances student outcomes;
- focuses on teaching and learning;
- builds the capacity to take charge of change regardless of its source;
- defines its own direction;
- assesses its current culture and works to develop positive cultural norms;
- has strategies to achieve its goals;
- addresses the internal conditions that enhance change;
- maintains momentum during periods of turbulence; and
- monitors and evaluates its process, progress, achievement and development.

They proposed ten cultural norms that focus on fundamental issues of how people relate to and value each other and, if practised, might influence school improvement. They added catch-phrases to articulate the core messages being promoted:

- Shared goals - 'we know where we're going'
- Responsibility for success - 'we must succeed'
- Collegiality - 'we're working on this together'
- Continuous improvement - 'we can get better'
- Lifelong learning - 'learning is for everyone'
- Risk taking - 'we learn by trying something new'

- Support - 'there's always someone there to help'
- Mutual respect - 'everyone has something to offer'
- Openness - 'we can discuss our differences'
- Celebration and humour - 'we feel good about ourselves'

(from Stoll, 1997: 12-13)

CONCLUSION

In my view the best education that we can hope for, for our students, for our families and for our countries is one that is local (ie. in my community) and global (ie. provides access to the knowledge resources of the whole world). It is grounded in the community in which I live but opens up a world of possibilities. It is educative and it is social. It provides me with the skills that I need now and gives me access to those that I will need later. I am linked to my education at all times of the day and no matter where I am in the world. My school age children, the rest of my family, my neighbours and my friends can all participate with me. The Third Millennium School has become a community facility which is sometimes used for the education of children and has replaced the school which was not a community facility, but was only sometimes used for the education of children. Unless principals work with each other, and with teachers, parents and whole communities, to promote the Third Millennium, rather than the Third World, solution to our current economic restructuring, the technological age may have brought about the demise of 'public' education soon after the millennium starts.

The most critical challenge for those making decisions about education at this time, at whatever level they are being made, is the one addressed by adapting Judy Coddling's (1997: 17) final words at the recent *Successful Schools* conference in Melbourne: 'The best guide I had as a high school principal was to try to do for the 2,500 students I had responsibility for in my school, what I would want done for my own three children'. We might now suggest that the best guide we, as educators, have for improving the quality of education provision for school communities throughout the world is to consider what we would want done for our own families. We would move from a consideration of individually effective schools to what it takes to make whole school systems effective.

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